05 - SB - 101 - PM R36.6
05-1C950K - 0513000018 - 2448
20.xx.201.110
May 2014

Project Scope Summary Report
(Structure Rehabilitation)

Request for Amendment into the 2014 SHOPP as a Long Lead Project

On Route 101 in Santa Barbara County
About 9 Miles Northwest of Goleta
At Refugio Road Undercrossing

I have reviewed the right of way information contained in this report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:

for Suzette Shellooe, *DIVISION CHIEF,*
CENTRAL REGION RIGHT OF WAY

APPROVAL RECOMMENDED:

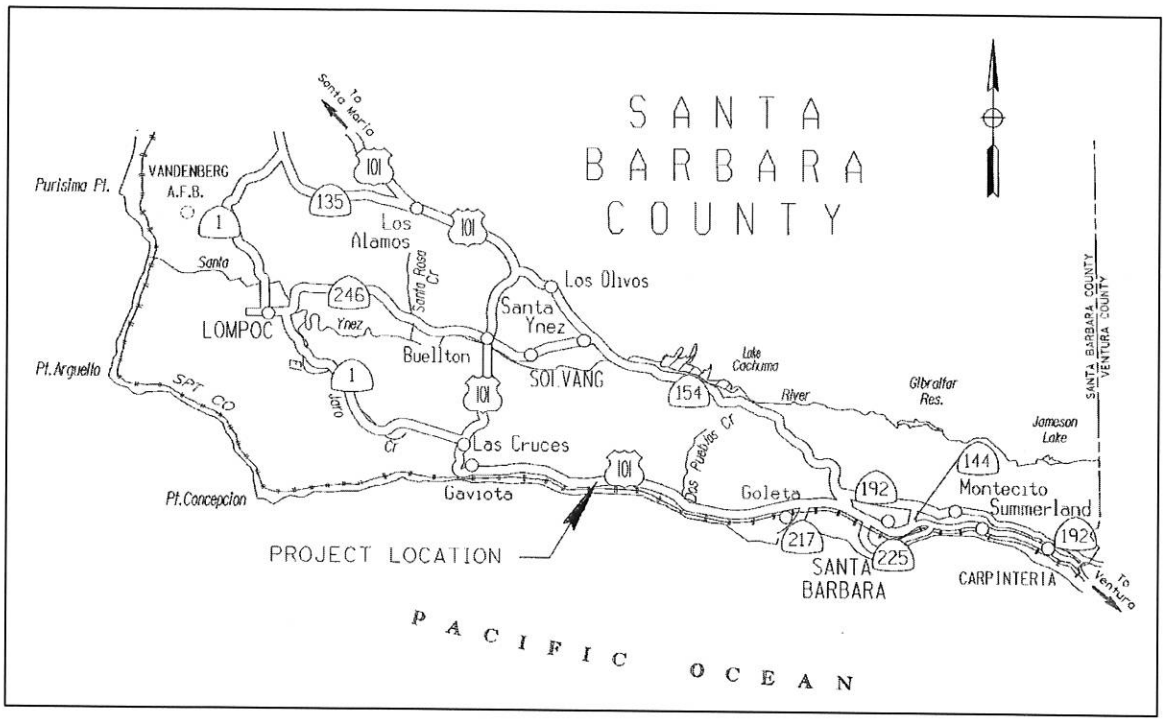
Paul Martinez, *PROJECT MANAGER*

APPROVED:

Timothy M. Gubbins, *DISTRICT 5 DIRECTOR* for

6.11.14
DATE

Vicinity Map



On Route 101 in Santa Barbara County
About 9 Miles Northwest of Goleta
At Refugio Road Undercrossing

This project scope summary report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Kari Bhana
REGISTERED CIVIL ENGINEER

5/12/2014
DATE

Table of Contents

1. INTRODUCTION AND BACKGROUND

Project Description:

The proposed project on U.S. Route 101 (US 101) in Santa Barbara County (Attachment A) involves replacement of the right and left Refugio Road Undercrossing (UC) Bridges (Br. No. 51-0215R/L) to mitigate the problem of reactive aggregate in the concrete of both bridges. Additionally, the bridge rails on the Canada Del Refugio On Ramp Bridge (Br. No. 51-0030S), located on the northbound (NB) on-ramp, will be upgraded from Type 9 to Type California ST-10 or other open-style bridge rail type.

Project Limits	05-SB-101-PM R36.6
Number of Build Alternatives	2 (See Attachment B)
Alternative Recommended for Programming	Alternative #2: Three-Span Cast-in-Place (CIP) Post-Tensioned (PT) Box Girder
Current Capital Outlay Support Estimate	$ 7,815,000
Current Capital Outlay Construction Estimate	$ 32,970,000
Current Capital Outlay Right of Way (R/W) Estimate	$ 12,070
Funding Source	SHOPP 201.110 (Bridge Rehabilitation)
Funding Year	2021/22
Type of Facility	Five-Lane Freeway
SHOPP Project Output	Two bridges, 200 feet of bridge rail upgraded
Anticipated Environmental Determination or Document	Mitigated Negative Declaration (CEQA) Categorical Exclusion (NEPA)
Legal Description	In Santa Barbara County About 9 Miles Northwest of Goleta at Refugio Road UC
Project Development Category	4B

2. RECOMMENDATION

It is recommended that this Project Scope Summary Report (PSSR) be approved and that the project receive authorization to be placed on the Long Lead list in the 2014 State Highway Operation and Protection Program (SHOPP) and begin Project Approval and Environmental Document (PA&ED) in the 2015/16 fiscal year or earlier.

3. PURPOSE AND NEED

Purpose:

The purpose of this project is to solve the problem of reactive aggregate in the Refugio Bridges' structure concrete, which will ensure the safety and reliability of the Route 101 corridor.

Need:

The project is needed because inspection of the Refugio Road UC structures has documented the presence of Alkali-Silica Reactivity (ASR) or reactive aggregate in the concrete. The mix of ASR and water results in a chemical reaction that causes concrete to crack and lose its strength.

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

4A. Roadway Geometric Information

		Existing	Proposed	Minimum RRR Standards
Facility Location	**Post Mile**	R36.6	R36.6	N/A
Minimum Curve Radius	**Radius**	2,700 ft	2,700 ft	2,100 ft
Through Traffic Lanes	**Number of Lanes**	5 (NB: 3, SB: 2)	5 (NB: 3, SB: 2)	N/A
	Lane Width	12 ft	12 ft	12 ft
	Type (Flexible, Rigid, or Composite)	Rigid	Rigid	N/A
Paved Shoulder Width	**Left**	NB: 5 ft, SB: 17 ft	NB: 10 ft, SB: 22 ft	NB: 10 ft, SB: 5ft
	Right	10 ft	10 ft	10 ft
Median Width	**Width**	58 ft	58 ft	62 ft
Shoulder is a Bicycle Lane	**Yes/No**	No	No	N/A
Other Bicycle Lane Width	**Width**	N/A	N/A	N/A
Bicycle Route	**Yes/No**	Yes	Yes	N/A
Facilities Adjacent to the Roadbed	**Code, Width**	N/A	N/A	N/A

Remarks:
At the project location, US 101 is a rural, rolling, divided five-lane freeway with a posted speed limit of 65 miles per hour (mph). The proposed design speed for this project is 70 mph.

The Resurfacing, Restoration, and Rehabilitation (RRR) standard for minimum median width will not be met when the facility is reconstructed due to alignment consistency, physical, and cost constraints. An Advisory Design Exception for this nonstandard feature was approved on March 10, 2014.

4B. Condition of Existing Facility

1) Pedestrian Facility Data

Facility Type and Location	Meets ADA Standards?	If Facility does not meet ADA Standards, what feature(s) are not ADA compliant?	Status of Each Noncompliant Location
Sidewalks	N/A	N/A	N/A
Curb Ramps	N/A	N/A	N/A
Crosswalks	N/A	N/A	N/A
Driveways	N/A	N/A	N/A
Shared bicycle/ pedestrian path	N/A	N/A	N/A
Other: *Trail adjacent to Refugio Road*	Unknown	Unknown	Any features found to be noncompliant will be corrected as part of this project.

Remarks:
The existing trail running parallel to Refugio Road below the Refugio Road UC and Canada Del Refugio On Ramp bridges has not been evaluated in the field for Americans with Disabilities Act (ADA) compliance. It is expected that the demolition of the existing bridges will obliterate this path and it will be reconstructed to fully comply with ADA standards.

2) Bicycle Path Data

Location	Deficiency
N/A	N/A

4C. Structures Information

Structures	Width Between Curbs			Replace Bridge Railings	Vertical Clearance			Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab	
Name Number	Exist (ft)	RRR Std (ft)	Prop (ft)	Yes/No	Exist (ft)	RRR Std (ft)	Prop (ft)	Yes/No	Yes/No	Yes/No	#
Refugio Rd UC 51-0215R	51	56	56	Yes	51	16.5	51	Yes	Yes	Yes	2
Refugio Rd UC 51-0215L	51	39	56	Yes	51	16.5	51	Yes	Yes	Yes	2
Canada Del Refugio On Ramp 51-0030S	24	24	24	Yes	N/A	N/A	N/A	Yes	Yes	No	-

Remarks:

Both Refugio Road UC Bridges have Type 9-11 bridge rail and the Canada Del Refugio On Ramp Bridge has Type 9 bridge rail. All bridge rails will be upgraded and the rail on the right side of each of the three bridges will have the addition of a bicycle railing. Currently, the proposed rail type for all structures is California ST-10 but the final type selection will be made after the visual impact assessment and aesthetic recommendation.

4D. Traffic Data

Present Year AADT (2011) 28,600 Present Year DHV (2011) 4,300
Construction Year AADT (2021) 36,982 Construction Year DHV (2021) 5,069
20 Year AADT (2041) 53,746 20 Year DHV (2041) 6,608
D 64.5% T 11.0%
T.I. (10-Year) 12 (Outside Lanes)/10 (Inside Lanes)/7 (Shoulder)
T.I. (20-Year) 13 (Outside Lanes)/11 (Inside Lanes)/8 (Shoulder)

Traffic Safety Analysis September 27, 2013

The collision rates for the three-year period from November 1, 2008 through October 31, 2011 for the project location are compared to the statewide averages for similar facilities in the table on the following page.

Location	No. of Collisions			Actual Rates (Coll/MV)			Average Rates (Coll/MV)		
	FAT	INJ	TOT	FAT	F+I	TOT	FAT	F+I	TOT
US 101 PM R36.5 to R36.8	0	1	6	0.000	0.03	0.18	0.002	0.05	0.13
US 101 NB On Ramp at Refugio	0	1	2	0.000	3.77	7.55	0.004	0.17	0.53

Although the data for this segment of mainline US 101 indicates that the collision rate per million vehicles (Coll/MV) is 38% higher than the average for similar highways, the fatality and injury rates were below the average. Of the six collisions reported, four involved single vehicles and two were multi-vehicle; only one was a minor injury collision. The primary collision factors were speeding (two collisions), improper turn (two collisions), and factor other than driver related (one collision). The types of collisions were one sideswipe and five objects struck; these objects included guardrail, median barrier, and a broken drive shaft in the road from a third vehicle that was struck by the other two vehicles involved in a collision. Three collisions occurred on a wet roadway surface and it should be noted that an open graded asphalt overlay project was completed for this section of US 101 in February 2012.

The data shows that while the fatality rate for the NB on-ramp at Refugio Road is lower than the average rate for similar facilities, the injury and total collision rates are significantly higher. Of the two collisions reported, one was property damage only and involved a driver that turned off the roadway and sideswiped a legally parked car. The other collision, which resulted in an injury, occurred when a speeding motorcycle was unable to make the left turn from Refugio Road onto the NB on-ramp and hit the barrier rail at Canada Del Refugio On Ramp Bridge.

The Traffic Safety Analysis gives no indication that any specific roadway feature has contributed to the frequency or severity of collisions occurring on this segment of US 101. Likewise, the evaluation has shown no locations of collision concentration. Therefore, there are no corrective strategy recommendations to make.

5. CORRIDOR AND SYSTEM COORDINATION

For the section that includes the proposed project, the federal functional classification of US 101 is Rural Principal Arterial. The route is part of the National Highway System (NHS) and the Interregional Road System (IRRS), is designated a Focus Route, and has been identified as a Strategic Highway Corridor Network (STRAHNET) route. It is a designated route on the National Truck Network and is a State Highway Extra Legal Load (SHELL) Route. This section of US 101 is eligible for designation as a Scenic Highway under the State Scenic Highway Program.

The Transportation Concept Report (TCR) is the long-term planning document developed by Caltrans District 5 for US 101. The TCR evaluates current and projected conditions along the route, establishes a 25-year planning concept and an ultimate planning concept, and recommends long- and short term improvements to achieve those concepts. For the US 101 segment (Santa Barbara County, PM 26.907 to 82.183) that includes the proposed project, the most recent TCR, dated August 2013, proposes the following corridor concept goals:

- Close existing at-grade access points, median openings, and driveways to improve operations on the US 101 mainline (25-year concept)
- Sustain mobility for bicyclists while promoting safety improvements designed to support bicycle travel (25-year concept)
- Improved management of truck parking needs (25-year concept)
- Widening US 101 to six lanes and converting all remaining expressway and conventional highway portions of the route to freeway (ultimate concept)

In the project vicinity, US 101 is a freeway with full access control and no areas appropriate for truck parking. The proposed project will continue to provide bicycle mobility, both during and after construction, and the new bridges are being designed to accommodate future widening to six lanes. The project as proposed is consistent with the route concept envisioned in the TCR.

There are no other planned projects along this corridor within eight miles of this project according to the Caltrans Central Region Status of Projects (March 2014).

6. ALTERNATIVES

6A. Rehabilitation strategy:

The Refugio Road UC Bridges, which were built in 1974, feature continuous reinforced concrete box girders on single column bents with driven concrete piles and open end diaphragm abutments. According to the Structure Replacement and Improvement Needs Report (STRAIN) (Attachment C), deck cracking was first noted in October 1974 for the NB bridge and in July 1979 for the southbound (SB) bridge. Cracking on one of the SB bridge abutments was first noted in 1995, followed by one of the NB bridge abutments in 1999. Since then, the bridge decks have continued to deteriorate and cracking has developed on the other bridge abutments.

This project was initiated after concrete core testing and an inspection of the structures by Structure Maintenance and Investigations (SM&I) documented the presence of ASR or reactive aggregate in the concrete. ASR is a widespread

problem affecting portland cement concrete (PCC) that occurs when silica in the aggregate and alkali in the cement react in the presence of water. Both bridge decks have been treated with methacrylate to seal the existing cracks but because it is not possible to permanently repair a deck with ASR, SM&I recommended that both structures be completely replaced.

The new bridges will match the length of the existing structures at approximately 336 feet each, as well as being constructed with the same alignment and profile (Attachment D). Each new bridge is proposed at 6 feet 4 inches wider than the existing structure to accommodate standard inside shoulders and upgraded railing, as shown in the typical cross sections (Attachment E). Additionally, the new structures will have a constant depth whereas the existing bridges have a variable-depth curved shape, a feature that would add a significant amount to the cost if it were to be replicated in the new design.

An Advanced Planning Study (APS) (Attachment B) has been developed by Structure Design and identifies two alternative bridge types: a two-span CIP PT box girder structure and a three-span CIP PT box girder structure. The two-span option has an estimated structure cost of $17,571,000 and places one bent for each bridge at the location of the existing bents, in the area between Refugio Road and the Canada Del Refugio Creek. The three-span structure, with a cost estimated at $22,769,000, would remove the existing bents and replace them with two new bents for each bridge with one set to the east of Refugio Road and one set to the west of the creek. The three-span structure is the alternative being recommended for programming because it reduces the permanent impact to the Canada Del Refugio Creek channel by eliminating the existing bents on the bank of the creek.

The only work being proposed on any of the Refugio Road interchange ramps is a barrier upgrade on the Canada Del Refugio NB On Ramp Bridge. This work was specially approved outside the scope of the Bridge Rehabilitation program by SM&I as a way to address an identified deficiency for a relatively small project cost increase of $223,000.

6B. Design exceptions:

The Mandatory Design Exception Fact Sheet was signed on March 4, 2014. The two mandatory design exception features documented are nonstandard superelevation rate on the mainline bridges and restricted stopping sight distance due to a sag vertical curve on the NB US 101 on-ramp.

The Advisory Design Exception Fact Sheet was signed on March 10, 2014. The six advisory design exception features documented are nonstandard superelevation transition, superelevation runoff, and vertical curve length on the NB US 101 on-ramp, nonstandard median width and vertical curve length on

mainline US 101, and 2:1 structure approach slopes for the proposed Refugio Road UC bridges.

All eight approved design exception features are maintained from the existing facility's design.

6C. Environmental compliance:

The Preliminary Environmental Analysis Report (PEAR) (Attachment F) provides a summary of the work that will be done in the environment studies phase of the project. This work includes but is not limited to two biological assessments, plant and animal surveys, wetland delineation, a Historic Property Survey Report (including an Archaeological Survey Report), and a visual impact assessment.

6D. Hazardous waste:

Aerially deposited lead, asbestos containing materials, lead containing paint, treated wood waste, and yellow thermoplastic or traffic stripe have been identified as possible hazardous materials that may be present at the project location. A site investigation and testing will be performed to confirm the presence of any hazardous materials. The materials identified are routine construction issues that will be handled by including the appropriate standard special provisions in the construction contract.

6E. Other agencies involved:

Prior to construction, the following permits must be obtained:

- Federal Clean Water Act (CWA) Section 401 Water Quality Certification, issued by the Regional Water Quality Control Board (RWQCB)
- CWA Section 404 Nationwide Permit, issued by the U.S. Army Corps of Engineers
- Fish and Game Code Section 1602 Streambed Alteration Agreement, issued by the California Department of Fish and Wildlife
- Coastal Development Permit (CDP), issued by the California Coastal Commission

6F. Material and/or disposal site:

Any material and/or disposal sites will be the responsibility of the Contractor.

6G. Highway planting and irrigation:

A planting and irrigation strategy will be developed by the project Landscape Architect in the PA&ED and Plans, Specifications, and Estimate (PS&E) phases.

6H. Roadside design and management:

There are no roadside management items currently included in this project. A safety field review was conducted on October 17, 2013 and no roadside design elements were proposed as a result of that review.

6I. Storm water compliance:

Per the Storm Water Data Report (SWDR) (Attachment G), this project is exempt from further consideration of Treatment Best Management Practices (BMPs) as it does not create more than one acre of new impervious surface. The project will be required to implement a Storm Water Pollution Prevention Plan (SWPPP). Temporary Construction Site BMPs will concentrate on sediment control, soil stabilization, materials handling, and waste management.

6J. R/W and utility issues:

As shown in the R/W Data Sheet (Attachment H), no permanent acquisitions or temporary construction easements will be required for this project. Below the mainline bridges adjacent to Refugio Road are underground electrical and water lines that serve Refugio Beach State Park. It is anticipated that these lines will be disturbed as a result of the bridge reconstruction activities.

6K. Railroad involvement:

The Union Pacific Railroad tracks run along US 101 to the south of the project area but the work will not impact the railroad and will not require railroad involvement.

6L. Salvaging and recycling of hardware and other non-renewable resources:

It is not anticipated that there will be any materials of significant amounts which would be economically and logistically advantageous to recycle or salvage.

6M. Prolonged temporary ramp closures:

Prolonged ramp closures are not anticipated as part of the stage construction activities.

6N. Recycled materials:

Rubberized Hot Mix Asphalt (RHMA) will be used where flexible pavement is being placed, except for in the construction of temporary median cross-overs. Material resulting from roadway excavation will be reused as embankment whenever possible. If practicable, the concrete and reinforcement from the bridge demolition will be used as base and recycled.

6O. Local and regional input:

A Draft Environmental Document (DED) will be made available for local agency and public comment. An opportunity for a public hearing will be offered if any public interest arises.

6P. Value analysis study:

Value analysis (VA) is a function-oriented, structured, multi-disciplinary team approach used to analyze and improve value in a project. The objective of a VA study is to develop a proposal to maximize quality and performance while minimizing cost. Federal law requires that all bridge projects on the NHS with a total escalated cost of $40 million or more must have a VA study conducted prior to construction. The VA study for this project will be conducted in the early PA&ED phase, prior to the approval of the DED.

6Q. Consequences of a "no build" alternative:

Without corrective action, the existing concrete structural members of both bridges will continue to deteriorate and eventually, the bridge reinforcing steel will become exposed to air and moisture. The exposure will cause damage to the reinforcement and in turn cause additional damage to the structures resulting in a non-traversable surface.

6R. Other alternatives considered:

The "no build" alternative proposes to leave the existing bridges in place as is with no modifications. This alternative is unacceptable due to the reasons listed in the previous section.

The "repair" alternative proposes to leave existing bridges in place, repairing damaged areas of the structural elements without replacing the bridges. This was rejected because it is not possible to permanently repair the concrete of a slab bridge in which ASR is present.

7. TRANSPORTATION MANAGEMENT

7A. Transportation Management Plan

All projects are required to include a Transportation Management Plan (TMP) (Attachment I) to address potential impacts to traffic flow during construction. Considerable traffic impacts are anticipated as a result of this project.

In order to replace the bridges, traffic staging will be required. Median cross-overs will be constructed and the NB traffic will be detoured to the SB side of the freeway while the NB bridge is being replaced. The NB on- and off-ramps will remain open for vehicular and bicycle traffic and SB bicycle traffic will be provided a 4-foot shoulder on the existing SB bridge while the NB bridge is being replaced. One 11-foot inside lane and one 11-foot 6-inch outside lane will be provided for each direction of travel.

Conversely, traffic (vehicles and bicycles) from the SB side will be detoured onto the new NB bridge while the SB bridge is being replaced. The NB bicycle traffic will continue to be detoured to the NB on- and off-ramps during this stage. Two 12-foot lanes will be provided in each direction and the SB bicycle traffic will be provided a 6-foot shoulder. The SB off-ramp to Refugio Road will be closed during this stage. Temporary railing (Type K) will be used to separate the NB and SB traffic between the median cross-overs.

Intermittent closures of Refugio Road will be required when removing the bridges and constructing the falsework. Approximately 20 closures can be expected lasting up to 8 to 10 hours each. During this time, only SB on-ramp access will be continuously open for traffic leaving the campground. This will impact Refugio Beach State Park because there are no other access points to it.

During Stage 1 while traffic is on the SB bridge, the SB on- and off-ramps will remain open and NB traffic will continue to use the NB on- and off-ramps. During Stage 2 while traffic is on the NB bridge, SB traffic will have to detour to the El Capitan off-ramp and travel back NB on Calle Real or US 101 to access the State Park via Refugio Road. In the same way, to reenter the highway, SB traffic will travel on Calle Real to the El Capitan SB on-ramp. During this stage, the NB on- and off-ramps will function as they normally do.

To help manage the complicated stage construction concept, the TMP for this project includes a public awareness campaign, portable changeable message signs, Construction Zone Enhanced Enforcement Program (COZEEP), and advanced notification of planned lane closures via the Department's Highway Conditions website.

7B. Vehicle Detection Systems

Per the Central Coast Intelligent Transportation Systems (ITS) Implementation Plan, no proposed vehicle detection systems and no ITS elements are identified within the project limits.

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

The anticipated environmental document for this project is a Mitigated Negative Declaration (MND) (California Environmental Quality Act (CEQA)) and Categorical Exclusion (CE) (National Environmental Policy Act (NEPA)).

PEAR Approval Date: 05/07/2014

9. PROJECT ESTIMATE

Structure Estimate	Yes/No	Estimate
Replace (Br. No. 51-0215R/L)	Yes	$ 22,769,000
Rehabilitate	No	
Deck	No	
Superstructure	No	
Substructure	No	
Joints	No	
Bearings	No	
Other	No	
Scour Correction	No	
Painting	No	
Widening	No	
Rail Replacement (Br. No. 51-0030S)	Yes	$ 223,000
Strengthen	No	
Seismic Retrofit	No	
Vertical Clearance Adjustment	No	
Drainage Rehabilitation	No	
Other	No	
Total (includes mobilization and 25% contingency)		**$ 22,992,000**

District Estimate	Yes/No	Estimate
Construction Area Signs	Yes	$ 20,000
Traffic Control System	Yes	$ 865,000
Stage Construction (Median Cross-overs)	Yes	$ 1,993,000
Temporary Striping	Yes	$ 12,000
Temporary Railing (Type K)	Yes	$ 158,000
Portable Changeable Message Signs	Yes	$ 370,000
Pavement (include remove and replace)	Yes	$ 405,000
Bridge Approach Guardrail (includes remove)	Yes	$ 35,000
Drainage Adjustment and Rehab	Yes	$ 25,000
Rock Slope Protection	No	
Highway Planting and Erosion Control	Yes	$ 300,000
Roadside Management	No	
Environmental Compliance	Yes	$ 140,000
Storm Water Compliance	Yes	$ 280,000
Lighting and Electrical	Yes	$ 120,000
Delineation and Signs	Yes	$ 8,000
Clearing and Grubbing	Yes	$ 10,000
Lead Compliance	Yes	$ 10,000
Progress Schedule (Critical Path Method)	Yes	$ 2,000
Minor Items		$ 476,000
Mobilization		$ 523,000
Supplemental		$ 623,000
State Furnished		$ 1,140,000
Subtotal		**$ 7,515,000**

Right of Way Estimate	Yes/No	Estimate
Right of Way Acquisition	No	
Railroad Agreement	No	
Utility Relocation	Yes	$ 9,375
Mitigation	Yes	$ 2,695
Total		**$ 12,070**

Totals	Estimate
Structure Total	**$ 22,992,000**
District Subtotal	$ 7,515,000
20% Contingency	$ 1,503,000
Time Related Overhead	$ 960,000
District Total	**$ 9,978,000**
Right of Way Total	**$ 12,070**
TOTAL PROJECT ESTIMATE	**$ 32,982,070**

10. FUNDING/PROGRAMMING

It has been determined that this project is eligible for federal-aid funding.

Capital Outlay Support and Project Estimates:

Fund Source	Fiscal Year Estimate							
20.XX.201.110	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Total
Component	In thousands of dollars ($1,000)							
PA&ED Support	1697							1697
PS&E Support				4467				4467
Right-of-Way Support				66				66
Construction Support							4900	4900
Right-of-Way				21				21
Construction							48712	48712
Total	1697			4554			53612	59863

Note: Support categories are the same as those identified by SB 45. Support costs escalated at 5% per year. Construction and R/W capital escalated at 5% per year. Assumes a project start date of 07/01/2015 with programming as a long lead project.

The support cost ratio is 23%.

11. SCHEDULE

Project Milestones		Scheduled Delivery Date (Month/Day/Year)
PROGRAM PROJECT	M015	07/01/2015
BEGIN ENVIRONMENTAL	M020	12/21/2015
CIRCULATE DPR & DED EXTERNALLY	M120	03/19/2018
PA & ED	M200	03/04/2019
PS&E TO DISTRICT OFFICE ENGINEER	M377	03/30/2021
DRAFT STRUCTURES PS&E	M378	10/02/2020
PROJECT PS&E	M380	12/16/2021
RIGHT OF WAY CERTIFICATION	M410	08/20/2021
READY TO LIST	M460	10/18/2021
AWARD	M495	03/29/2022
APPROVE CONTRACT	M500	04/26/2022
CONTRACT ACCEPTANCE	M600	04/15/2025
END PROJECT	M800	05/29/2026

12. RISKS

A Risk Register (Attachment J) has been prepared by the Project Development Team (PDT) to assess, respond to, and monitor identified project risks that may occur throughout the life of the project. The Risk Register is a tool to help the PDT take the appropriate measures to minimize adverse impacts to the project scope, schedule, or cost. However, the Risk Register cannot identify all risks in advance of occurrence for a project, as some risks are unknown. Significant risks specific to this project include the risk of schedule delay and increased cost due to a prolonged permitting process, the risk of utility relocation delays, the risk of 4(f) issues related to the Refugio Beach State Park, and the risk of discovering human remains or other significant archaeological artifacts during construction.

The current cost estimate and schedule do not include quantitative impacts to costs and/or schedule for the risks identified in the Risk Register.

13. FHWA COORDINATION

This project is considered to be an Assigned Project in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

14. PROJECT REVIEWS

Scoping Team Field Review	See Attachment K	Date	09/27/2013
District SHOPP Program Advisor	Kelly McKinley	Date	04/09/2014
HQ SHOPP Program Advisor	Nancy Bruton	Date	03/21/2014
Construction Estimate Review	Jo Anne Engelmann	Date	04/08/2014
HQ Design Reviewer	Michael Janzen	Date	02/28/2014
District Safety Review	Scott Morris	Date	04/26/2014
Constructability Review	David Ballentine	Date	04/09/2014

15. PROJECT PERSONNEL

Paul Martinez	Project Manager	(805) 549-3407
Ron Kraemer	Design Engineer	(805) 549-3040
Kari Bhana	Project Engineer	(805) 542-4772
Matt Fowler	Environmental Manager	(805) 542-4603
Mike Jacob	Environmental Planner	(805) 542-4685
Michael Downs	Structure Liaison Engineer	(805) 227-9365
Gudmund Setberg	Senior Bridge Engineer	(916) 227-8282
Grant Schuster	Structure Design Engineer	(916) 227-0443
Marshall Garcia	R/W Project Delivery	(805) 549-3471
Robert Davis	R/W Utilities	(805) 549-3577

16. ATTACHMENTS

A. Location Map
B. Advanced Planning Study (APS)
C. Structure Replacement and Improvement Needs Report (STRAIN) Data
D. Preliminary Project Layout
E. Typical Cross Sections
F. Preliminary Environmental Analysis Report (PEAR)
G. Storm Water Data Report (SWDR) Cover Sheet
H. Right of Way (R/W) Data Sheet
I. Transportation Management Plan (TMP)
J. Risk Register
K. Scoping Team Field Review Attendance Roster
L. Final Document Distribution List